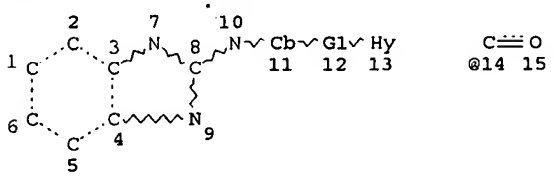
```
=> b reg
FILE 'REGISTRY' ENTERED AT 18:01:49 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:     7 AUG 2007  HIGHEST RN 944239-85-4
DICTIONARY FILE UPDATES:    7 AUG 2007  HIGHEST RN 944239-85-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d que sta l10
L8                  STR
```




```
VAR G1=AK/O/S/N/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E6 C  AT  11
ECOUNT  IS E5 C  E1 N  AT  13

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L10           40 SEA FILE=REGISTRY SSS FUL L8

100.0% PROCESSED  108196 ITERATIONS                          40 ANSWERS
SEARCH TIME: 00.00.04


=> b hcap
FILE 'HCAPLUS' ENTERED AT 18:02:31 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited..

FILE COVERS 1907 - 8 Aug 2007  VOL 147 ISS 7
```

FILE LAST UPDATED: 7 Aug 2007 (20070807/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

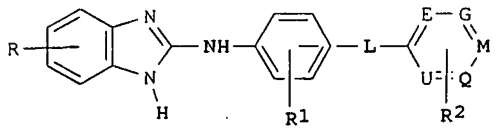
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitrn fhitstr l13

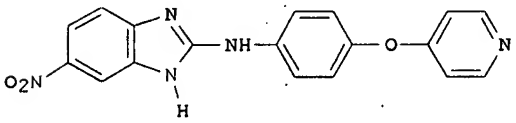
L13 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:409508 HCAPLUS
DN 142:463726
TI Preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors
IN Staehle, Wolfgang; Buchstaller, Hans-Peter; Jonczyk, Alfred; Rautenberg, Wilfried
PA Merck Patent G.m.b.H., Germany
SO PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO2005042520	A1	20050512	2004WO-EP11550	20041014	<--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	DE--10349587	A1	20050525	2003DE-1049587	20031024	<--
	AU2004285643	A1	20050512	2004AU-0285643	20041014	<--
	CA---2543346	A1	20050512	2004CA-2543346	20041014	<--
	EP---1675849	A1	20060705	2004EP-0765962	20041014	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
	CN---1871232	A	20061129	CN 2004-80031334	20041014	<--
	BR2004015760	A	20061219	2004BR-0015760	20041014	<--
	JP2007509096	T	20070412	2006JP-0536006	20041014	<--
	MX2006PA04405	A	20060614	2006MX-PA04405	20060420	<--
	US2007066660	A1	20070322	2006US-0577033	20060424	<--
	IN2006KN01239	A	20070427	2006IN-KN01239	20060511	<--
PRAI	2003DE-1049587	A	20031024	<--		
	2004WO-EP11550	W	20041014	<--		

OS MARPAT 142:463726
GI



I



II

AB Title compds. I [R = (R1)m; R1 = (R1')p; R2 = (R2')q; m, p, q = 0-4; R1, R1' = Halo, OH, CN, etc.; L = CH2, CH2CH2, O, etc.; R2' = halo, OH, CO2H, etc.; E, G, M, Q, U = C or N atom with provisos] and their

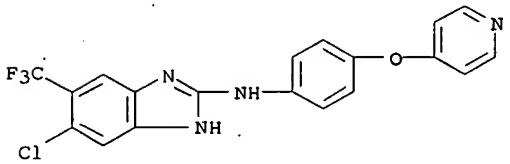
pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-(4-isothiocyanatophenoxy)puridine and 4-nitro-1,2-phenylenediamine afforded claimed benzimidazol II. In TIE-2 tyrosine kinase inhibition assays, 3-examples of compds. I exhibited IC50 values ranging from 5-40 x 10-7 mol/L. Compds. I are claimed to be useful as tyrosine kinase inhibitors in the treatment of tumors.

IT **851677-12-8P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-13-9P**, [4-(Pyridin-4-yloxy)phenyl](6-trifluoromethyl-1H-benzimidazol-2-yl)amine **851677-14-0P**, (6-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-15-1P**, (5-Chloro-4-methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-16-2P**, (4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-17-3P**, (4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-18-4P**, (5,6-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-19-5P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-20-8P**, (5,6-Dichloro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-21-9P**, (5,6-Dichloro-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-22-0P**, (5-Chloro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-23-1P**, (5-Chloro-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-24-2P**, (4-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-25-3P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-26-4P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-27-5P**, (4,5-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-28-6P**, (5-Chloro-6-methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-29-7P**, (5-Chloro-6-methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-30-0P**, [4,6-Bis(trifluoromethyl)-1H-benzimidazol-2-yl][4-(pyridin-4-yloxy)phenyl]amine **851677-31-1P**, [4,6-Bis(trifluoromethyl)-1H-benzimidazol-2-yl][4-(pyridin-3-yloxy)phenyl]amine **851677-32-2P**, [4-(Pyridin-3-yloxy)phenyl](6-trifluoromethyl-1H-benzimidazol-2-yl)amine **851677-33-3P**, (6-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-34-4P**, (4,5-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-35-5P**, (5-Chloro-4-methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-36-6P**, (4-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-37-7P**, (5,6-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-39-9P** **851677-40-2P** **851677-44-6P**, (6-Nitro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-45-7P**, 2-[4-(Pyridin-4-yloxy)phenylamino]-3H-benzimidazole-5-carboxlic acid methyl ester **851677-48-0P**, (4-Fluoro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-51-5P** **851677-52-6P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors)

IT **851677-12-8P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors)

RN 851677-12-8 HCAPLUS

CN 1H-Benzimidazol-2-amine, 5-chloro-N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr l14 tot

L14 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:259680 HCAPLUS
DN 142:336356
TI Preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors
IN Poitout, Lydie; Brault, Valerie; Sackur, Carole; Roubert, Pierre; Plas, Pascale
PA Fr.
SO U.S. Pat. Appl. Publ., 213 pp., Cont.-in-part of U.S. Ser. No. 504,033.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US2005065179	A1	20050324	2004US-0915920	20040811
FR---2851563	A1	20040827	2003FR-0002320	20030226
FR---2851563	B1	20050422		
WO2004075823	A2	20040910	2004WO-FR00418	20040225
WO2004075823	A3	20041007		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI	2003FR-0002320	A	20030226
	2003US-0504033	A2	20030920
	2004WO-FR00418	W	20040225

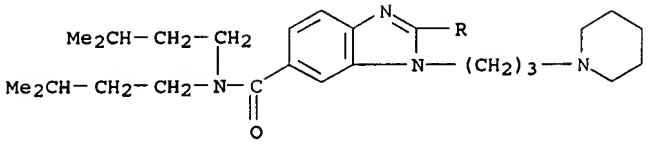
OS MARPAT 142:336356
GI

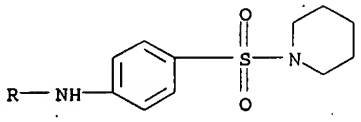
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein A = CH2, CO, (un)substituted COCH2; X = CH, N; R1, R2 = independently H, alkyl optionally substituted by OH, alkenyl, etc.; or R1NR2 = (un)substituted hetero(bi)cycloalkyl; R3 = alkyl, alkoxy, alkylthio, heteroaryl, (un)substituted hetero/cycloalkyl, aryl, etc.; R4 = (CH2)sR5; R5 = heterocycloalkyl, heteroaryl, etc.; s = 0-6] were prepared as melanocortin (MC), in particular MC4, receptor modulators (no data given). For example, II was prepared, in 2 steps, by amination of 3-Fluoro-N,N-bis(3-methylbutyl)-4-nitrobenzamide (preparation given) with 3-(piperidino)propylamine in CH3CN at reflux, followed by one-step hydrogenation/coupling with 4-acetylphenyl isothiocyanate. I are useful in the treatment of pathol. states and the diseases in which one or more melanocortin receptors are included such as pain, inflammatory conditions, etc.

IT 848577-67-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors)

RN 848577-67-3 HCAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-1-[3-(1-piperidinyl)propyl]-2-[[4-(1-piperidinylsulfonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

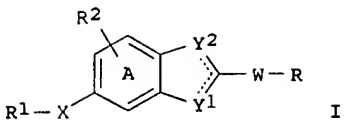




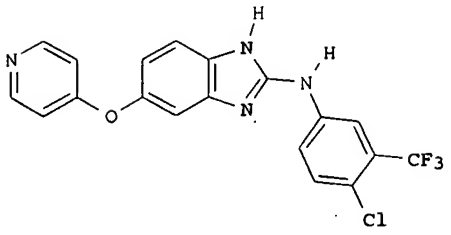
L14 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:817883 HCAPLUS
DN 141:332190
TI Preparation of fused azoles such as 2,5-disubstituted benzimidazoles, benzoxazoles and benzothiazoles as kinase inhibitors
IN Dipietro, Lucian V.; Harmange, Jean-Christophe; Askew, Benny C., Jr.; Elbaum, Daniel; Germain, Julie; Habgood, Gregory J.; Kim, Joseph L.; Patel, Vinod F.; Potashman, Michele; Van der Plas, Simon
PA Amgen Inc., USA
SO PCT Int. Appl., 289 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2004085425	A1	20041007	2004WO-US08809	20040322
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US2004209892	A1	20041021	2004US-0804915	20040319
	AU2004223827	A1	20041007	2004AU-0223827	20040322
	CA---2518909	A1	20041007	2004CA-2518909	20040322
	EP---1638954	A1	20060329	2004EP-0758050	20040322
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	JP2006520805	T	20060914	2006JP-0507472	20040322
PRAI	2003US-456691P	P	20030321		
	2004US-0804915	A	20040319		
	2004WO-US08809	A	20040322		

OS MARPAT 141:332190
GI



I



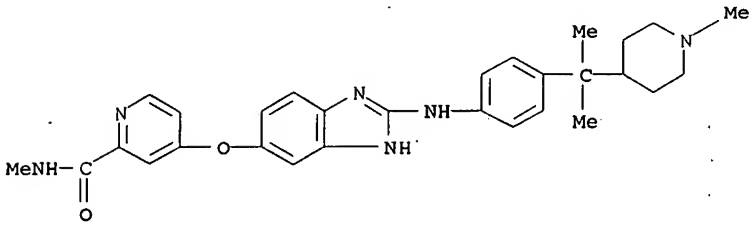
II

AB Title compds. I [W, X, Y1 and Y2 independently = O, S(O)n and NR3; ring A optionally contains a N atom at a non-fused, non-substituted ring position; n = 0-2; R = (un)substituted-aryl, -heterocyclyl, -fused heterocyclyl, etc.; R1 = (un)substituted-aryl, -arylalkyl, -heterocyclyl, etc.; R2 = H, halo, alkoxy, etc.; R3 = H or alkyl] are prepared and disclosed as having kinase inhibitory activity, such as VEGFR/KDR inhibitory activity. Thus, e.g., II was prepared by cyclocondensation of 4-(pyridin-4-yloxy)benzene-1,2-diamine with 1-chloro-4-isothiocyanato-2-trifluoromethylbenzene. In human umbilical vein endothelial cell proliferation assay, selected I inhibited VEGF-stimulated proliferation at a level below 100 nM. Accordingly, I would be useful in the prevention and treatment of angiogenesis related disorders, ophthalmol. conditions, proliferative diseases, inflammatory diseases, and other pathol. conditions as described in the specification.

IT **769960-08-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of benzimidazole, benzoxazole and benzothiazole derivs. as kinase inhibitors)

RN 769960-08-9 HCAPLUS

CN 2-Pyridinecarboxamide, N-methyl-4-[[2-[[4-[1-methyl-1-(1-methyl-4-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



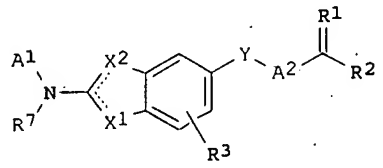
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:513393 HCAPLUS
DN 141:71544
TI Preparation of substituted benzazoles as Raf kinase inhibitors
IN Amiri, Payman; Fantl, Wendy; Levine, Barry Haskell; Poon, Daniel J.; Ramurthy, Savithri; Renhowe, Paul A.; Subramanian, Sharadha; Sung, Leonard
PA USA
SO U.S. Pat. Appl. Publ., 476 pp., Cont.-in-part of U.S. Pat. Appl. 2004 87,626.

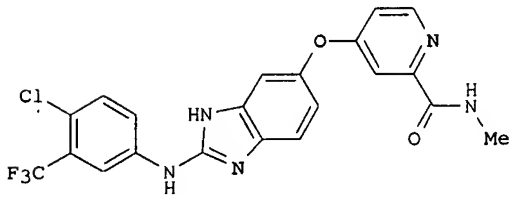
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US2004122237	A1	20040624	2003US-0675927	20030929
US2004087626	A1	20040506	2003US-0405945	20030331
US---7071216	B2	20060704		
AU2004277405	A1	20050414	2004AU-0277405	20040929
CA---2539748	A1	20050414	2004CA-2539748	20040929
WO2005032548	A1	20050414	2004WO-US32161	20040929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP---1675584	A1	20060705	2004EP-0789345	20040929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR2004014908	A	20061107	2004BR-0014908	20040929
CN---1913884	A	20070214	CN 2004-80032677	20040929
JP2007507428	T	20070329	2006JP-0528331	20040929
MX2006PA03435	A	20060620	2006MX-PA03435	20060327
JP2006193533	A	20060727	2006JP-0096143	20060330
IN2006KN00838	A	20070413	2006IN-KN00838	20060405
PRAI 2002US-369066P	P	20020329		
2003US-0405945	A2	20030331		
2003JP-0579810	A3	20030331		
2003US-0675927	A	20030929		
2004WO-US32161	W	20040929		

OS MARPAT 141:71544
GI



I



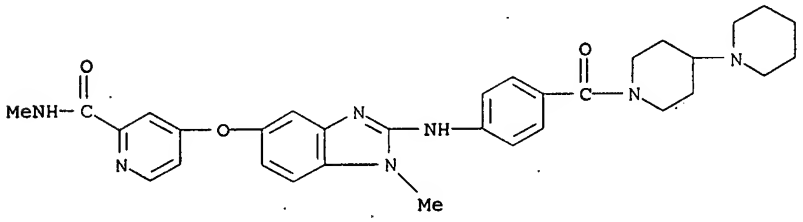
II

AB The title compds. I [wherein X1, X2 = N, NR4, O, S (with provisos); Y = O, S; A1 = (un)substituted alkyl, (hetero)cycloalkyl(alkyl), (hetero)aryl(alkyl), etc.; A2 = (un)substituted heteroaryl; R1 = O, H; R2 = NR5R6, OH; or CR1R2 = (un)substituted heterocycloalkyl, heteroaryl; R3 = H, halo, alkyl, alkoxy; R4 = H, OH, (di)alkylamino, alkyl; R5, R6 = H, (un)substituted (cyclo)alkyl, alkoxyalkyl, aminoalkyl, amidoalkyl, acyl, heterocyclyl, (hetero)aryl, etc.; or R5 and R6 are taken together to form (un)substituted heterocyclyl or heteroaryl; R7 = alkyl; and pharmaceutically acceptable salts, esters, or prodrugs] were prepared as Raf kinase inhibitors. Examples include synthetic methods and phys. data for 1400 compds., as well as descriptions of two Raf kinase bioassays. For instance, 4-amino-3-nitrophenol and (4-chloropyridin-2-yl)-N-methylcarboxamide were coupled using potassium bis(trimethylsilyl)amide

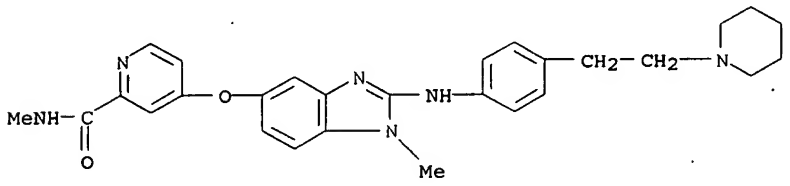
and K2CO3 in DMF to give 4-[(4-amino-3-nitrophenyl)oxy]-N-methylpyridine-2-carboxamide. Pd-catalyzed hydrogenation, followed by cyclization with 4-chloro-3-(trifluoromethyl)benzeneisothiocyanate in the presence of 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide•HCl in THF provided the benzimidazole II. One thousand ninety-four compds. inhibited Raf kinase activity with IC50 < 5 μM in a Raf/Mek filtration assay or a biotinylated Raf screen. Thus, I and their pharmaceutical compns., which may comprise at least one addnl. agent, are useful for the treatment of Raf kinase mediated disorders, such as cancer (no data).

IT **611220-90-7P 611221-14-8P 710353-65-4P,**
N-Methyl-4-[[2-[[3-[2-(piperidin-1-yl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]pyridine-2-carboxamide **710353-66-5P,**
N-Methyl-4-[[1-methyl-2-[[3-[2-(piperidin-1-yl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]pyridine-2-carboxamide **710353-67-6P,**
4-[[6-Methoxy-1-methyl-2-[[3-[2-(piperidin-1-yl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]-N-methylpyridine-2-carboxamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Raf kinase inhibitor; preparation of substituted benzazoles as Raf kinase inhibitors for treatment of cancer)

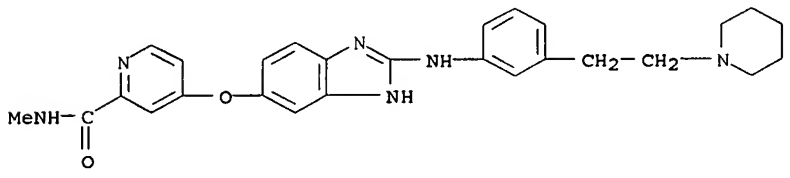
RN 611220-90-7 HCAPLUS
CN 2-Pyridinecarboxamide, 4-[[2-[[4-([1,4'-bipiperidin]-1'-ylcarbonyl)phenyl]amino]-1-methyl-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)



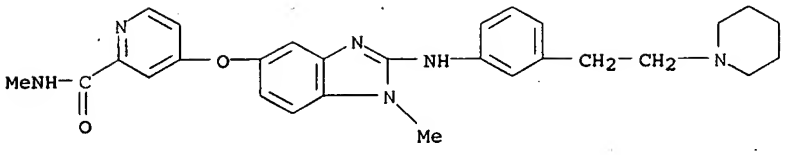
RN 611221-14-8 HCAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



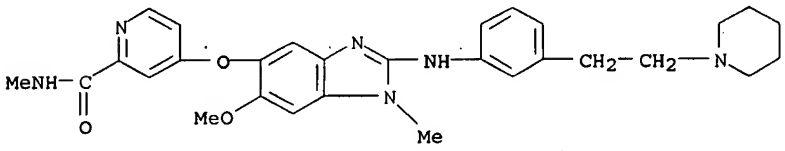
RN 710353-65-4 HCAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[2-[[3-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



RN 710353-66-5 HCAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[3-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



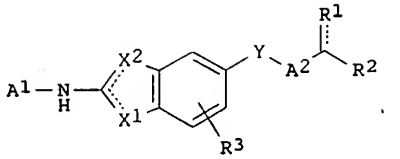
RN 710353-67-6 HCAPLUS
CN 2-Pyridinecarboxamide, 4-[[6-methoxy-1-methyl-2-[[3-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)



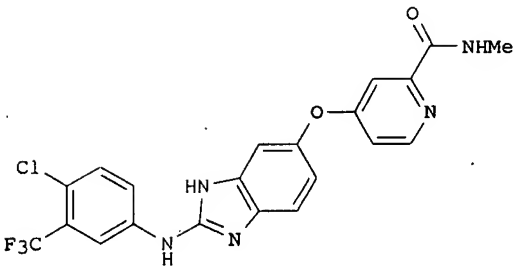
L14 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:796477 HCAPLUS
DN 139:307759
TI Preparation of substituted benzazoles as Raf kinase inhibitors
IN Renhowe, Paul A.; Ramurthy, Savithri; Amiri, Payman; Levine, Barry Haskell; Poon, Daniel J.; Subramanian, Sharadha; Sung, Leonard; Fantl, Wendy
PA Chiron Corporation, USA
SO PCT Int. Appl., 259 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2003082272	A1	20031009	2003WO-US10117	20030331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA---2480638	A1	20031009	2003CA-2480638	20030331
AU2003226211	A1	20031013	2003AU-0226211	20030331
EP---1499311	A1	20050126	2003EP-0745683	20030331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR2003008854	A	20050222	2003BR-0008854	20030331
CN---1655779	A	20050817	2003CN-0812193	20030331
JP2005529089	T	20050929	2003JP-0579810	20030331
NZ----535985	A	20070427	2003NZ-0535985	20030331
IN2004KN01433	A	20051230	2004IN-KN01433	20040927
MX2004PA09541	A	20050125	2004MX-PA09541	20040929
NO2004004617	A	20041228	2004NO-0004617	20041026
ZA-200408386	A	20060531	2004ZA-0008386	20060308
JP2006193533	A	20060727	2006JP-0096143	20060330
PRAI 2002US-369066P	P	20020329		
2003JP-0579810	A3	20030331		
2003WO-US10117	W	20030331		

OS MARPAT 139:307759
GI



I



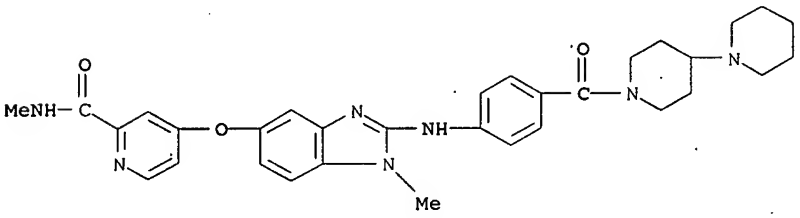
II

AB The title compds. [I; X1, X2 = N, NR4, O, S (with the provisos); Y = O, S; A1 = (un)substituted alkyl, cycloalkyl, aryl, etc.; A2 = (un)substituted heteroaryl; R1 = O, H, and R2 = NR5R6, OH; or CR1R2 = (un)substituted heterocycloalkyl, heteroaryl; R3 = H, halo, alkyl, alkoxy; R4 = H, OH, (di)alkylamino, alkyl; R5, R6 = H, (un)substituted alkyl, alkoxyalkyl, etc.; or R5 and R6 are taken together to form (un)substituted heterocyclyl or heteroaryl], useful for inhibition of Raf kinase activity in a human or animal subject, were prepared E.g., a 3-step synthesis of the benzimidazole II (starting from 4-amino-3-nitrophenol and (4-chloropyridin-2-yl)-N-methylcarboxamide), was given. The compds. of examples 1-1094 showed a Raf kinase inhibitory activity at an IC50 of less than 5 μM. A composition comprising the compound I is claimed. The new compds. compns. may be used either alone or in combination with at least one addnl. agent for the treatment of a Raf kinase mediated disorder, such as cancer.

IT **611220-90-7P 611221-14-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted benzazoles as Raf kinase inhibitors)

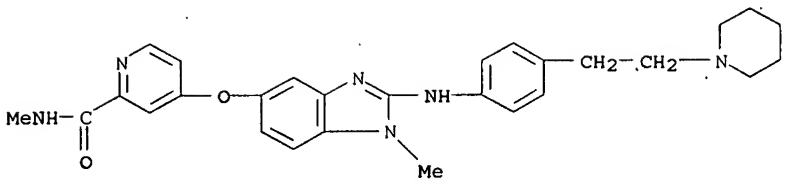
RN 611220-90-7 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[[2-[[4-([1,4'-bipiperidin]-1'-ylcarbonyl)phenyl]amino]-1-methyl-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)



RN 611221-14-8 HCAPLUS

CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> => => b uspatall
FILE 'USPATFULL' ENTERED AT 18:03:53 ON 08 AUG 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 18:03:53 ON 08 AUG 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitrn fhitstr l17

L17 ANSWER 1 OF 1 USPATFULL on STN
AN 2007:76306 USPATFULL
TI Benzimidazolyl derivatives
IN Stahle, Wolfgang, Ingelheim, GERMANY, FEDERAL REPUBLIC OF
Buchstaller, Hans-Peter, Griesheim, GERMANY, FEDERAL REPUBLIC OF
Jonczyk, Alfred, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Rautenberg, Wilfried, Reinheim, GERMANY, FEDERAL REPUBLIC OF
PA Merck Patent GmbH, DARMSTADT, GERMANY, FEDERAL REPUBLIC OF, 64293
(non-U.S. corporation)
PI US-20070066660 A1 20070322 <--
AI 2004US-000577033 A1 20041014 (10)
2004WO-EP00011550 20041014
20060424 PCT 371 date
PRAI 2003DE-0010349587 20031024 <--
DT Utility
FS APPLICATION
LREP HELLER EHRMAN LLP, 1717 RHODE ISLAND AVE, NW, WASHINGTON, DC, 20036-3001, US
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2276
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to the novel compounds of formula (I) wherein R.sup.1, R.sup.1, L, E, G, M, Q, U, R.sup.2, m, p and q are defined as in claim 1. The novel compounds are tyrosinkinase inhibitors, especially TIE-2 inhibitors, and Raf kinase inhibitors and can be used in the treatment of tumors. ##STR1##

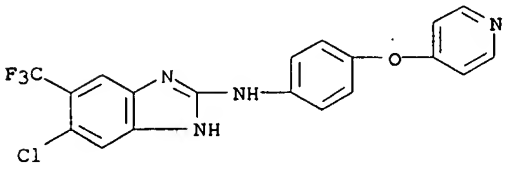
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **851677-12-8P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-13-9P**, [4-(Pyridin-4-yloxy)phenyl](6-trifluoromethyl-1H-benzimidazol-2-yl)amine **851677-14-0P**, (6-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-15-1P**, (5-Chloro-4-methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-16-2P**, (4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-17-3P**, (4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-18-4P**, (5,6-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-19-5P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-20-8P**, (5,6-Dichloro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-21-9P**, (5,6-Dichloro-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-22-0P**, (5-Chloro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-23-1P**, (5-Chloro-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-24-2P**, (4-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-25-3P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-26-4P**

, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-27-5P**, (4,5-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-28-6P**, (5-Chloro-6-methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-29-7P**, (5-Chloro-6-methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-30-0P**, [4,6-Bis(trifluoromethyl)-1H-benzimidazol-2-yl][4-(pyridin-4-yloxy)phenyl]amine **851677-31-1P**, [4,6-Bis(trifluoromethyl)-1H-benzimidazol-2-yl][4-(pyridin-3-yloxy)phenyl]amine **851677-32-2P**, [4-(Pyridin-3-yloxy)phenyl](6-trifluoromethyl-1H-benzimidazol-2-yl)amine **851677-33-3P**, (6-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-34-4P**, (4,5-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-35-5P**, (5-Chloro-4-methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-36-6P**, (4-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-37-7P**, (5,6-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-39-9P 851677-40-2P** **851677-44-6P**, (6-Nitro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-45-7P**, 2-[4-(Pyridin-4-yloxy)phenylamino]-3H-benzimidazole-5-carboxlic acid methyl ester **851677-48-0P**, (4-Fluoro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-51-5P 851677-52-6P**
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors)

IT **851677-12-8P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors)

RN 851677-12-8 USPATFULL

CN 1H-Benzimidazol-2-amine, 5-chloro-N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



=> d bib abs hitstr l18 tot

L18 ANSWER 1 OF 5 USPATFULL on STN

AN 2005:75878 USPATFULL

TI Novel derivatives of benzimidazole and imidazo-pyridine and their use as medicaments

IN Poitout, Lydie, Le Kremlin Bicetre, FRANCE
Brault, Valerie, Saint-Arnoult-En-Yvelines, FRANCE
Sackur, Carole, Paris, FRANCE
Roubert, Pierre, Paris, FRANCE
Plas, Pascale, Chatillon, FRANCE

PI US-20050065179 A1 20050324

AI 2004US-000915920 A1 20040811 (10)

RLI Continuation-in-part of Ser. No. US 504033, PENDING A 371 of International Ser. No. 2004WO-FR00000418, filed on 25 Feb 2004, UNKNOWN

PRAI 2003FR-0000002320 20030226

DT Utility

FS APPLICATION

LREP MUSERLIAN, LUCAS AND MERCANTI, LLP, 475 PARK AVENUE SOUTH, 15TH FLOOR, NEW YORK, NY, 10016

CLMN Number of Claims: 43

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 4046

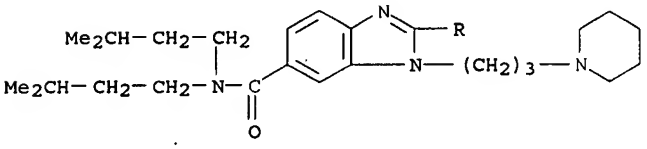
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

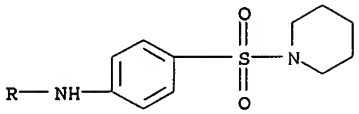
AB A compound of the formula ##STR1##

wherein the substituents are as defined in the specification and pharmaceutical salts thereof having a good affinity for sub-types of melanocortin receptors making them useful for treating diseases in which

such receptors are included such as pain, inflammatory conditions, etc.

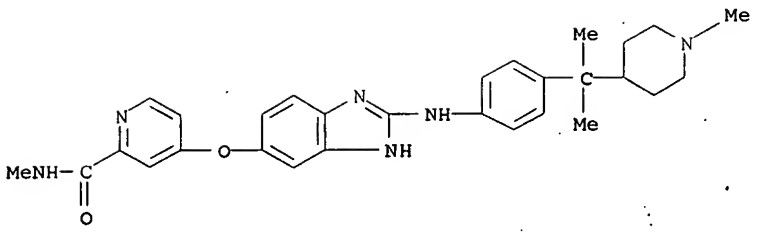
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 848577-67-3P
(preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors)
RN 848577-67-3 USPATFULL
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-1-[3-(1-piperidinyl)propyl]-2-[[4-(1-piperidinylsulfonyl)phenyl]amino]- (9CI) (CA INDEX NAME)





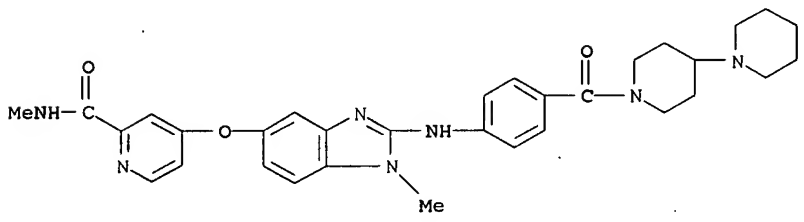
L18 ANSWER 2 OF 5 USPATFULL on STN
AN 2004:268349 USPATFULL
TI Heterocyclic compounds and methods of use
IN Di Pietro, Lucian V., Gloucester, MA, UNITED STATES
Harmange, Jean-Christophe, Andover, MA, UNITED STATES
Askew, Benny C., JR., Newbury Park, CA, UNITED STATES
Elbaum, Daniel, Newton, MA, UNITED STATES
Germain, Julie, Medford, MA, UNITED STATES
Habgood, Gregory J., Merrimac, MA, UNITED STATES
Kim, Joseph L., Wayland, MA, UNITED STATES
Patel, Vinod F., Acton, MA, UNITED STATES
Potashman, Michele, Cambridge, MA, UNITED STATES
van der Plas, Simon, Medford, MA, UNITED STATES
PI US-20040209892 A1 20041021
AI 2004US-000804915 A1 20040319 (10)
PRAI 2003US-000456691P 20030321 (60)
DT Utility
FS APPLICATION
LREP AMGEN INC., U.S. Patent Operations/JWB, Dept. 4300, M/S 27-4-A, One Amgen Center Drive, Thousand Oaks, CA, 91320-1799
CLMN Number of Claims: 60
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 6639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Selected compounds are effective for prophylaxis and treatment of diseases, such as angiogenesis mediated diseases. The invention encompasses novel compounds, analogs, prodrugs and pharmaceutically acceptable salts thereof, pharmaceutical compositions and methods for prophylaxis and treatment of diseases and other maladies or conditions involving, cancer and the like. The subject invention also relates to processes for making such compounds as well as to intermediates useful in such processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 769960-08-9P
(drug candidate; preparation of benzimidazole, benzoxazole and benzothiazole derivs. as kinase inhibitors)
RN 769960-08-9 USPATFULL
CN 2-Pyridinecarboxamide, N-methyl-4-[[2-[[4-[1-methyl-1-(1-methyl-4-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



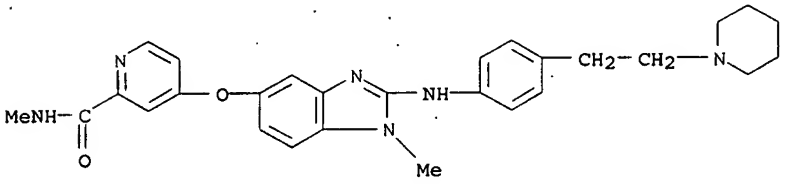
L18 ANSWER 3 OF 5 USPATFULL on STN
AN 2004:159433 USPATFULL
TI Substituted benzazoles and methods of their use as inhibitors of Raf kinase
IN Amiri, Payman, Walnut Creek, CA, UNITED STATES
Fantl, Wendy, San Francisco, CA, UNITED STATES
Levine, Barry Haskell, Lafayette, CA, UNITED STATES
Poon, Daniel J., Oakland, CA, UNITED STATES
Ramurthy, Savithri, Walnut Creek, CA, UNITED STATES
Renhowe, Paul A., Danville, CA, UNITED STATES
Subramanian, Sharadha, San Ramon, CA, UNITED STATES
Sung, Leonard, Irvine, CA, UNITED STATES
PI US-20040122237 A1 20040624
AI 2003US-000675927 A1 20030929 (10)
RLI Continuation-in-part of Ser. No. 2003US-000405945, filed on 31 Mar 2003, PENDING
PRAI 2002US-000369066P 20020329 (60)
DT Utility
FS APPLICATION
LREP Chiron Corporation, Intellectual Property - R440, P.O. Box 8097, Emeryville, CA, 94662-8097
CLMN Number of Claims: 86
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 9816
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB New substituted benz-azole compounds, compositions and methods of inhibition of Raf kinase activity in a human or animal subject are provided. The new compounds compositions may be used either alone or in combination with at least one additional agent for the treatment of a Raf kinase mediated disorder, such as cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **611220-90-7P 611221-14-8P 710353-65-4P**,
N-Methyl-4-[[2-[[3-[2-(piperidin-1-yl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]pyridine-2-carboxamide **710353-66-5P**,
N-Methyl-4-[[1-methyl-2-[[3-[2-(piperidin-1-yl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]pyridine-2-carboxamide **710353-67-6P**,
4-[[6-Methoxy-1-methyl-2-[[3-[2-(piperidin-1-yl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]-N-methylpyridine-2-carboxamide
(Raf kinase inhibitor; preparation of substituted benzazoles as Raf kinase inhibitors for treatment of cancer)
RN 611220-90-7 USPATFULL
CN 2-Pyridinecarboxamide, 4-[[2-[[4-([1,4'-bipiperidin]-1'-ylcarbonyl)phenyl]amino]-1-methyl-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)

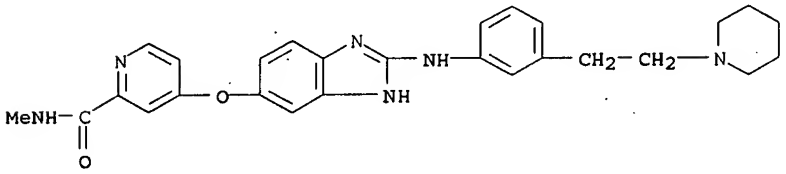


RN 611221-14-8 USPATFULL

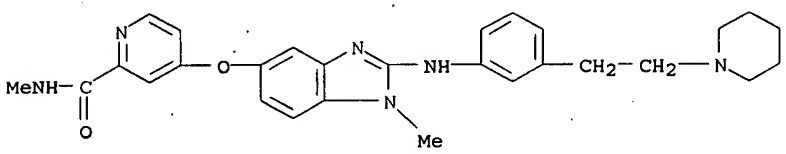
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



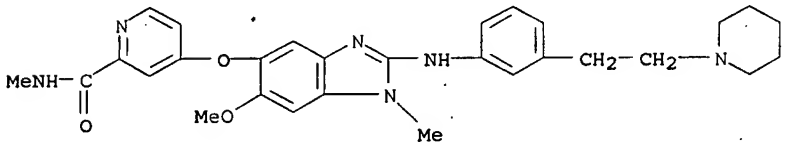
RN 710353-65-4 USPATFULL
CN 2-Pyridinecarboxamide, N-methyl-4-[[2-[[3-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



RN 710353-66-5 USPATFULL
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[3-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



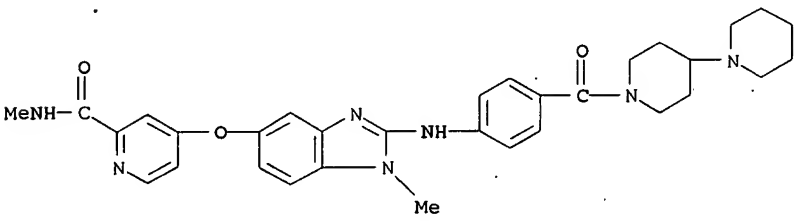
RN 710353-67-6 USPATFULL
CN 2-Pyridinecarboxamide, 4-[[6-methoxy-1-methyl-2-[[3-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)



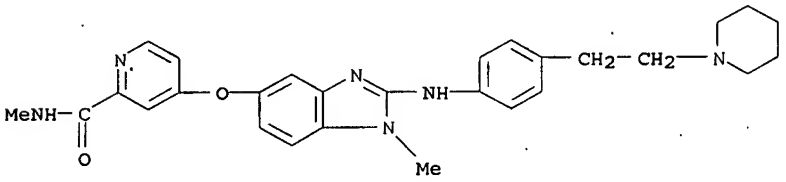
L18 ANSWER 4 OF 5 USPATFULL on STN
AN 2004:114780 USPATFULL
TI Substituted benz-azoles and methods of their use as inhibitors of Raf kinase
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Ramurthy, Savithri, Walnut Creek, CA, UNITED STATES
Amiri, Payman, Lafayette, CA, UNITED STATES
Levine, Barry Haskell, Lafayette, CA, UNITED STATES
Poon, Daniel J., Oakland, CA, UNITED STATES
Subramanian, Skaradha, San Ramon, CA, UNITED STATES
Sung, Leonard, Irvine, CA, UNITED STATES
Fantl, Wendy, San Francisco, CA, UNITED STATES
PI US-20040087626 A1 20040506
US-----7071216 B2 20060704
AI 2003US-000405945 A1 20030331 (10)

PRAI 2002US-000369066P 20020329 (60)
DT Utility
FS APPLICATION
LREP CHIRON CORPORATION, Intellectual Property-R440, P.O. Box 8097, Emeryville, CA, 94662-8097
CLMN Number of Claims: 86
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 7855
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB New substituted benz-azole compounds, compositions and methods of inhibition of Raf kinase activity in a human or animal subject are provided. The new compounds compositions may be used either alone or in combination with at least one additional agent for the treatment of a Raf kinase mediated disorder, such as cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **611220-90-7P 611221-14-8P**
(preparation of substituted benzazoles as Raf kinase inhibitors)
RN 611220-90-7 USPATFULL
CN 2-Pyridinecarboxamide, 4-[[2-[[4-([1,4'-bipiperidin]-1'-ylcarbonyl)phenyl]amino]-1-methyl-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)



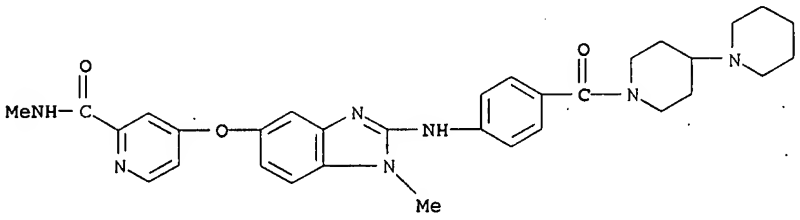
RN 611221-14-8 USPATFULL
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



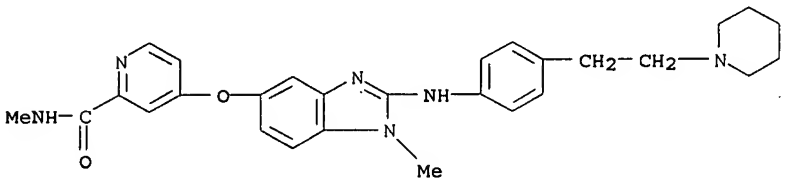
L18 ANSWER 5 OF 5 USPAT2 on STN
AN 2004:114780 USPAT2
TI Substituted benz-azoles and methods of their use as inhibitors of Raf kinase
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Ramurthy, Savithri, Walnut Creek, CA, UNITED STATES
Amiri, Payman, Walnut Creek, CA, UNITED STATES
Levine, Barry Haskell, Lafayette, CA, UNITED STATES
Poon, Daniel J., Oakland, CA, UNITED STATES
Subramanian, Sharadha, San Ramon, CA, UNITED STATES
Sung, Leonard, Irvine, CA, UNITED STATES
Fantl, Wendy, San Francisco, CA, UNITED STATES
Hansen, Teresa, Danville, CA, UNITED STATES
McBride, Christopher, Oakland, CA, UNITED STATES
Shafer, Cynthia M., El Sobrante, CA, UNITED STATES
PA Chiron Corporation, Emeryville, CA, UNITED STATES (U.S. corporation)
PI US-----7071216 B2 20060704
AI 2003US-000405945 20030331 (10)
PRAI 2002US-000369066P 20020329 (60)
DT Utility
FS GRANTED

EXNAM Primary Examiner: Stockton, Laura L.
LREP Shelton, Dennis K., Suh, Young J., Harbin, Alisa A.
CLMN Number of Claims: 66
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 6608
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB New substituted benz-azole compounds, compositions and methods of inhibition of Raf kinase activity in a human or animal subject are provided. The new compounds compositions may be used either alone or in combination with at least one additional agent for the treatment of a Raf kinase mediated disorder, such as cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **611220-90-7P 611221-14-8P**
(preparation of substituted benzazoles as Raf kinase inhibitors)
RN 611220-90-7 USPAT2
CN 2-Pyridinecarboxamide, 4-[[2-[[4-([1,4'-bipiperidin]-1'-ylcarbonyl)phenyl]amino]-1-methyl-1H-benzimidazol-5-yl]oxy]-N-methyl- (9CI) (CA INDEX NAME)



RN 611221-14-8 USPAT2
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-[2-(1-piperidinyl)ethyl]phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 17:40:43 ON 08 AUG 2007)

FILE 'HCAPLUS' ENTERED AT 17:41:17 ON 08 AUG 2007
L1 1 US20070066660/PN OR (US2006-577033 OR WO2004-EP11550 OR DE2003-

FILE 'REGISTRY' ENTERED AT 17:44:11 ON 08 AUG 2007

FILE 'HCAPLUS' ENTERED AT 17:44:11 ON 08 AUG 2007
L2 TRA L1 1- RN : 52 TERMS

FILE 'REGISTRY' ENTERED AT 17:44:11 ON 08 AUG 2007
L3 52 SEA L2
L4 4 L3 AND C19H12CLF3N4O
L5 6 NCNC2-C6/ES AND NC5/ES AND 46.150.18/RID AND C19H12CLF3N4O
L6 2 L5 NOT L4
SAV TEM L4 J033ES/A

FILE 'HCAPLUS' ENTERED AT 17:48:38 ON 08 AUG 2007
L7 1 L4

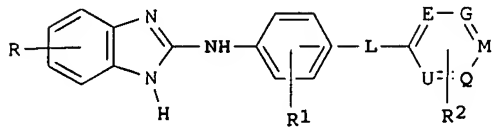
FILE 'REGISTRY' ENTERED AT 17:49:31 ON 08 AUG 2007

```
L8              STR
L9            1 L8
L10          40 L8 FULL
                SAV TEM L10 J033C1/A
L11          33 L10 AND L3

     FILE 'HCAPLUS' ENTERED AT 17:57:50 ON 08 AUG 2007
L12           5 L10
L13           1 L12 AND L1
L14           4 L12 NOT L13

     FILE 'HCAOLD' ENTERED AT 18:03:14 ON 08 AUG 2007
L15           0 L10

     FILE 'USPATFULL, USPAT2' ENTERED AT 18:03:23 ON 08 AUG 2007
L16           6 L10
L17           1 L16 AND L1
L18           5 L16 NOT L17

=> => => b hcap
FILE 'HCAPLUS' ENTERED AT 18:12:25 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 8 Aug 2007  VOL 147 ISS 7
FILE LAST UPDATED: 7 Aug 2007  (20070807/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d bib abs hitstr l7

L7   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2007 ACS on STN
AN   2005:409508  HCAPLUS
DN   142:463726
TI   Preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the
     treatment of tumors
IN   Staehle, Wolfgang; Buchstaller, Hans-Peter; Jonczyk, Alfred; Rautenberg,
     Wilfried
PA   Merck Patent G.m.b.H., Germany
SO   PCT Int. Appl., 105 pp.
     CODEN: PIXXD2
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO2005042520         A1    20050512    2004WO-EP11550         20041014
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     DE--10349587          A1    20050525    2003DE-1049587         20031024
```

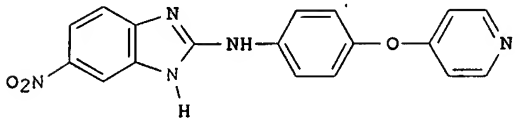
	AU2004285643	A1	20050512	2004AU-0285643	20041014
	CA---2543346	A1	20050512	2004CA-2543346	20041014
	EP---1675849	A1	20060705	2004EP-0765962	20041014
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN---1871232	A	20061129	CN 2004-80031334	20041014
	BR2004015760	A	20061219	2004BR-0015760	20041014
	JP2007509096	T	20070412	2006JP-0536006	20041014
	MX2006PA04405	A	20060614	2006MX-PA04405	20060420
	US2007066660	A1	20070322	2006US-0577033	20060424
	IN2006KN01239	A	20070427	2006IN-KN01239	20060511
PRAI	2003DE-1049587	A	20031024		
	2004WO-EP11550	W	20041014		

OS MARPAT 142:463726

GI



I



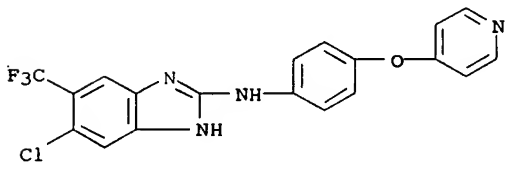
II

AB Title compds. I [R = (R1)m; R1 = (R1')p; R2 = (R2')q; m, p, q = 0-4; R1, R1' = Halo, OH, CN, etc.; L = CH2, CH2CH2, O, etc.; R2' = halo, OH, CO2H, etc.; E, G, M, Q, U = C or N atom with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-(4-isothiocyanatophenoxy)puridine and 4-nitro-1,2-phenylenediamine afforded claimed benzimidazol II. In TIE-2 tyrosine kinase inhibition assays, 3-examples of compds. I exhibited IC50 values ranging from 5-40 x 10-7 mol/L. Compds. I are claimed to be useful as tyrosine kinase inhibitors in the treatment of tumors.

IT **851677-12-8P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-19-5P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-25-3P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-26-4P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors)

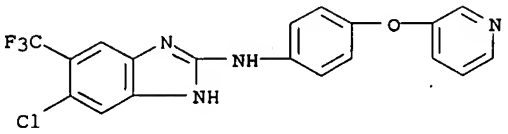
RN 851677-12-8 HCAPLUS

CN 1H-Benzimidazol-2-amine, 5-chloro-N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)

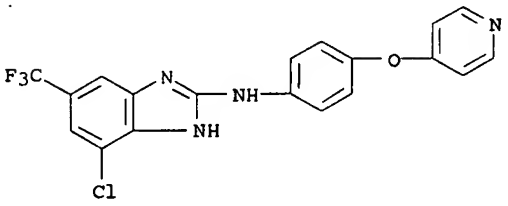


RN 851677-19-5 HCAPLUS

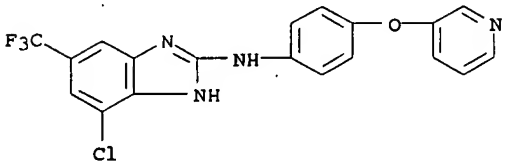
CN 1H-Benzimidazol-2-amine, 5-chloro-N-[4-(3-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 851677-25-3 HCAPLUS
CN 1H-Benzimidazol-2-amine, 4-chloro-N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 851677-26-4 HCAPLUS
CN 1H-Benzimidazol-2-amine, 4-chloro-N-[4-(3-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> b uspatall
FILE 'USPATFULL' ENTERED AT 18:12:45 ON 08 AUG 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

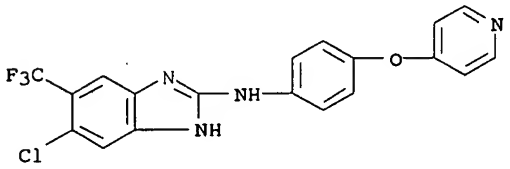
FILE 'USPAT2' ENTERED AT 18:12:45 ON 08 AUG 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitstr l20

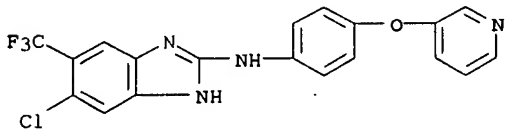
L20 ANSWER 1 OF 1 USPATFULL on STN
AN 2007:76306 USPATFULL
TI Benzimidazolyl derivatives
IN Stahle, Wolfgang, Ingelheim, GERMANY, FEDERAL REPUBLIC OF
Buchstaller, Hans-Peter, Griesheim, GERMANY, FEDERAL REPUBLIC OF
Jonczyk, Alfred, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Rautenberg, Wilfried, Reinheim, GERMANY, FEDERAL REPUBLIC OF
PA Merck Patent GmbH, DARMSTADT, GERMANY, FEDERAL REPUBLIC OF, 64293 (non-U.S. corporation)
PI US-20070066660 A1 20070322
AI 2004US-000577033 A1 20041014 (10)
2004WO-EP00011550 20041014
20060424 PCT 371 date
PRAI 2003DE-0010349587 20031024
DT Utility
FS APPLICATION
LREP HELLER EHRMAN LLP, 1717 RHODE ISLAND AVE, NW, WASHINGTON, DC, 20036-3001, US
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2276

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to the novel compounds of formula (I) wherein R.sup.1, R.sup.1, L, E, G, M, Q, U, R.sup.2, m, p and q are defined as in claim 1. The novel compounds are tyrosinkinase inhibitors, especially TIE-2 inhibitors, and Raf kinase inhibitors and can be used in the treatment of tumors. ##STR1##

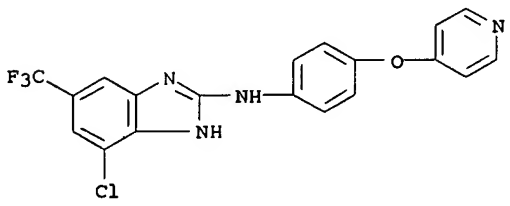
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **851677-12-8P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-19-5P**, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine **851677-25-3P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine **851677-26-4P**, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors)
RN 851677-12-8 USPATFULL
CN 1H-Benzimidazol-2-amine, 5-chloro-N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



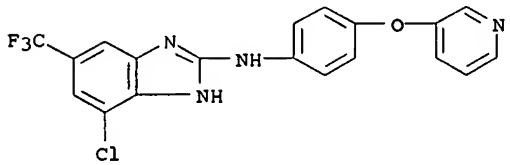
RN 851677-19-5 USPATFULL
CN 1H-Benzimidazol-2-amine, 5-chloro-N-[4-(3-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 851677-25-3 USPATFULL
CN 1H-Benzimidazol-2-amine, 4-chloro-N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 851677-26-4 USPATFULL
CN 1H-Benzimidazol-2-amine, 4-chloro-N-[4-(3-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



```
=> d his l19-

     (FILE 'USPATFULL, USPAT2' ENTERED AT 18:03:53 ON 08 AUG 2007)

     FILE 'HCAOLD' ENTERED AT 18:12:05 ON 08 AUG 2007
L19            0 L7

     FILE 'USPATFULL, USPAT2' ENTERED AT 18:12:14 ON 08 AUG 2007
L20            1 L4

     FILE 'HCAPLUS' ENTERED AT 18:12:25 ON 08 AUG 2007

     FILE 'USPATFULL, USPAT2' ENTERED AT 18:12:45 ON 08 AUG 2007

=>
```